

EXPLANATION OF SIGNIFICANT DIFFERENCE
TO THE ASARCO TACOMA SMELTER FACILITY
RECORD OF DECISION
RUSTON AND TACOMA, WASHINGTON

A. Introduction

1. Site name and location: Former Asarco Tacoma Smelter Facility and Slag Peninsula (the "Site"), Operable Unit 2 of the Commencement Bay Nearshore Tidelands Superfund Site, Ruston and Tacoma, Washington.
2. Lead Agency: U.S. Environmental Protection Agency (EPA).
3. Support Agency: State of Washington, Department of Ecology.
4. Legal authorities for cleanup action: The Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA), 42 U.S.C. § 9601, et seq., and the National Oil and Hazardous Substance Pollution Contingency Plan (NCP), 40 C.F.R. Part 300.

B. Summary of Site History, Contamination Problems, and Selected Remedy

ASARCO, Inc. (Asarco) has owned and/or operated the Asarco Tacoma Smelter property since 1905. Asarco used the property initially as a lead smelter and refinery, and converted it in 1912 into a facility to smelt and refine copper from copper-bearing ores and concentrates shipped in from other locations. Slag, a black, rock-like, by-product of Asarco's copper smelting operations was either used by Asarco as a fill to extend the shoreline of the Site or sold to local entities and companies for their use as fill. Asarco closed the Smelter in 1985.

Past smelter operations and emissions resulted in releases of hazardous substances, including arsenic and other heavy metals, at and in areas surrounding the smelter. Metals that are in the slag or soil have migrated to surface and ground water at the Site. Ores which were smelted at the Site left metals in the buildings and structures on the Site, most of which were removed pursuant to the Asarco Demolition Consent Decree in May 1992.

EPA issued the Record of Decision (ROD) for the final remediation of the Site in March 1995. EPA determined that cleanup actions were necessary because current conditions on the Site posed unacceptable risks over the long-term to future residents, potential workers, and visitors and to the ground water discharging to Commencement Bay.



One critical component of the ROD is construction of a RCRA-compliant On-Site Containment Facility (OCF). Pursuant to the ROD, the OCF will contain the Site's RCRA characteristic source area soils, granular fill and demolition debris. The OCF's liner, cap, leak detection, collection and removal system, leachate collection and removal system and surface run-on and run-off control systems are required to meet federal and state standards for a hazardous waste landfill. The ROD states that the OCF shall be constructed "northeast of the arsenic kitchen area." ROD, Section 9.1.2 (a).

C. Summary of the Explanation of Significant Difference to the Asarco Tacoma Smelter Facility Record of Decision

EPA has selected a new, on-site location for the OCF after extensive review and exploration of the original OCF location identified in the ROD. Asarco, with EPA approval, investigated subsurface conditions of the proposed OCF location between May and July, 1995. The investigation revealed that the OCF location identified in the ROD was unacceptable in its existing state.

Data from the investigation showed the proposed OCF location was underlain by a buried alluvial valley, partially filled with loose sands and silts, and partially by soft clay and peat. The investigation revealed that the sandy and silty materials are likely to liquify in the event of a severe seismic event, resulting in slope spreading and settlement. In addition, the side slopes of the buried alluvial valley appear to be rather steep, and differential settlement could cause severe local deformation and stress to liners and collection systems. Furthermore, clayey and silty alluvial deposits may result in excessive settlement under the load of the OCF or bearing capacity failure. Bearing capacity failure would cause large shear strains that would severely damage the OCF.

Due to the high seismic risk of the area, and the excessive risk posed by potential bearing capacity failure, settlement and slope spreading, EPA determined that further geotechnical investigation was required to find an alternative OCF location. Asarco performed additional field investigation and laboratory testing in the parking lot area of the site, off Bennett Street, in September 1995. Preliminary analysis indicated that this area was geotechnically acceptable, and not subject to bearing failure, excessive settlement or slope instability. As a result, EPA has selected this area as the new location for the OCF.

D. Public Participation Activities

EPA held two public comment periods from September 20, 1995, to November 20, 1995 on moving and changing the location of the OCF from northeast of the arsenic kitchen area to the parking lot area off Bennett Street (see Superfund Fact Sheets included as

Attachments 1 and 2). The attached Fact Sheets were distributed to the Asarco mailing list of approximately 800 individuals. In addition, the Fact Sheets were made available for public review at the information repositories listed on the back page of the Fact Sheets (see Attachments 1 and 2). EPA and Asarco also sponsored community meetings where the geotechnical information and relocation of the OCF were discussed. EPA did not receive any written comments in response to the public comment periods, and participants at the community meetings did support changing the OCF's location based on Asarco's findings.

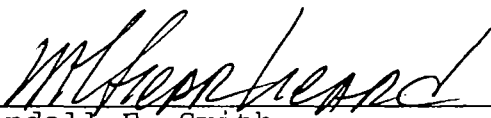

E. Administrative Record

This ESD, the attached Fact Sheets, the Record of Decision, the Asarco geotechnical reports and other reports and information related to the Asarco Tacoma Smelter Site are part of the administrative record for the Site. The administrative record is available for public review at the following locations:

1. In Seattle: Environmental Protection Agency
1200 Sixth Ave.
2. In Tacoma: Tacoma Public Library
Main Branch
1102 Tacoma Avenue South
Northwest Room

F. Affirmation of Statutory Determinations

Considering the new information that has developed and the change that has been made to the selected remedy, EPA believes that the remedy remains protective of human health and the environment, complies with federal and state requirements that were identified in the ROD as applicable or relevant and appropriate to this remedial action, and is cost-effective. In addition, the remedy continues to utilize permanent solutions and alternative treatment technologies to the maximum extent possible, as described in more detail in the Declaration of the Record of Decision, page v.


7/2/96
 Randall F. Smith
Director, Office of Environmental Cleanup

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CONCURRENCES						
Initials:	CS-R	edk	ORL	RA		
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Date:	6/25/96	6/27/96	6/28/96	7/1/96		